

## At Marshall Center

# Researchers Discuss MSL Mission Results

by Bob Thompson

International researchers are reunited to share scientific results during a conference at Marshall — one year after the flight of 33 experiments aboard Space Shuttle Columbia.

At the conference, which began Tuesday and continues through today, investigators will present their results from the experiments conducted in microgravity — the near-weightlessness of space — that may lead to better automobile and aerospace alloys, new and faster computer chips, and safer and more efficient fuels.

During Marshall's First Microgravity Science Laboratory mission in July 1997, teams of NASA, industry and university researchers worked around the clock last July to study the behavior of fire, the microstructure of metal alloys and the secrets of human proteins important to designing disease-fighting drugs.

"The results gained from this highly successful mission make it clear that space is providing science with unique and fruitful research opportunities," said Mission Scientist Dr. Michael Robinson. "This conference showcases how microgravity

*See Discoveries on page 2*

## Marshall Volunteers Sought For ISS Testing Support

Marshall's Environmental Control and Life Support Branch, MED62, is preparing a test to evaluate the latest design of the International Space Station Water Recovery System. This test is scheduled to begin in October and be completed in December.

To support the testing, human participation is required in the generation of the various waste waters to be processed by the Water Recovery System. To support this effort, the Environmental Control and Life Support Branch is seeking volunteers from among Marshall employees to serve as test participants. Center management has approved Marshall personnel participation during work hours and compensation for weekend support.

Test participation includes exercising in a facility using equipment provided (treadmills, stair-stepper, rowing machine, stationary bicycle) for approximately one hour, after which each participant will be asked to wash their hands to generate waste water. Also, some participants will be asked to take showers, shave, or brush their teeth each day. Extensive measures are



NASA photo by Dennis Olive

### **Spectacular Finale**

A colorful fireworks display illuminated the sky Saturday night during the Marshall Center picnic at the U.S. Space & Rocket Center. This grand finale was one of many exciting activities that Marshall employees, contractors, retirees and their family members enjoyed.

taken to ensure the safety of all test volunteers.

Test participants must obtain approval from their supervisor and be a full-time Marshall employee. The number of times a volunteer participates in the test activities each week will be based on their availability as coordinated with their supervisor. Each test participant must submit the results of their most recent annual physical examination and a treadmill exam, which is provided upon request by the Kelsey-Seybold Clinic. A blood sample from each volunteer will be required for analysis and all medical results remain confidential.

If you are interested in volunteering, contact Layne Carter via e-mail or call 544-7082 for additional information.

## NASA Keeps an Eye on Hurricane Bonnie

NASA flew a DC-8 aircraft into the eye of Hurricane Bonnie Aug. 23 as part of a study that began in mid-August and continues through Sept. 23.

The Atlantic hurricane and tropical storm study — led by Robbie Hood, lead mission scientist, and researchers from Marshall's Global Hydrology and Climate Center — aims to improve hurricane predictions on the ground. NASA has joined forces with the National Oceanic and Atmospheric Administration in a first-ever coordinated effort to study the eye of a hurricane. The focus of this study is to learn more about the strength and direction of hurricanes. Results from the study could increase warning time — saving lives and property — and decrease the size of evacuation areas.



## Rogers Receives Blair-Ryan Excellence Award

Patrick Rogers, an engineer with Marshall's Structural Analysis Division, Structures and Dynamics Laboratory, received the 1998 Blair-Ryan Engineering Award of Excellence in recognition of his support of Space Shuttle super lightweight external tank production at the Michoud Assembly Facility in New Orleans, La. Rogers provided extensive on-site material review board support for production activities on the new lightweight tank, which was successfully launched for the first time in June of this year.



Patrick Rogers

The award is presented annually to recognize engineering excellence within the Structures and Dynamics Laboratory.



NASA photo by Emmett Givens

## Cramer Discusses NASA, Spin-Off Technology

Issues of vital interest to north Alabama, including NASA and spin-off technology were topics discussed by U.S. Rep. Bud Cramer Monday during a Washington Update luncheon at the Von Braun Center North Hall. The luncheon was sponsored by the Huntsville/Madison County Chamber of Commerce.



Courtesy photo

Payload Commander Dr. Janice Voss ignites the first free-standing flame ball ever — aboard Space Shuttle Columbia during the First Microgravity Science Laboratory mission in April 1997.

## Discoveries

*Continued from page 1*

research is adding to our basic scientific knowledge and may contribute to our quality of life here on Earth."

Also at the conference, Dr. Daniel Carter of New Century Pharmaceuticals Inc. in Huntsville is presenting results from protein crystal growth biotechnology experiments processed aboard the Shuttle.

Dr. Paul Ronney of the University of Southern California in Los Angeles is to discuss the first observations of free-floating flame balls. Described by Ronney as "successful beyond my wildest dreams," his experiment is increasing the understanding of how to design leaner burning fuels that could lead to better gas mileage and less auto emissions.

Dr. Gerard Faeth of the University of Michigan at Ann Arbor is slated to discuss how scientists gained their first glimpse of the concentration and structure of soot from a fire burning in near-weightless conditions. Like the flame ball experiment, this investigation could lead to improvements in fuel efficiency for all types of burning processes from car and jet engines to heating and cooking appliances.

Materials researchers are to present results from the experiment known as the Electromagnetic Containerless Processing Facility — usually referred to by its German acronym TEMPUS. It is an electromagnetic levitation facility that allows scientists on the ground to process metallic samples in a containerless microgravity environment on the Shuttle. Results from this experiment could lead to better metals manufacturing processes, improved welding techniques and stronger metallic glasses.

"Our first Microgravity Science Laboratory team has successfully opened the door to some tantalizing scientific research," said Robinson. More information about NASA Microgravity Science experiments may be found at the following Web site:

<http://microgravity.msfc.nasa.gov/MICROGRAVITY/>



*By Mike Wright  
Center Historian*

**T**he pages are difficult to read on the micro film reader in the Huntsville Public Library, but there it is – the Huntsville Telegram for Aug. 26, 1920.

There's a small story on the front page entitled, "First Cotton Peeps from Bolls Here" and there's an item offering "Dancing Monday in Mastin Lake Park." Another small headline reported that "New Market Favors 3 Mill School Tax." But above it all is a banner headline on the front page that reads "Suffrage for Women is Now an Established Fact."

Today, Aug. 26, is Women's Equality Day. It is the 78th anniversary of the constitutional amendment which granted women the right to vote. Until that time, rights were given and taken regularly in state legislatures all over the country. The passage of the movement culminated a massive civil rights movement by women that had continued for more than 70 years.

The Huntsville Telegram reported that on the afternoon of Aug. 26, 1920, President Woodrow Wilson would receive Mrs. Carrie Chapman, president of the National Woman Suffrage Association, and offer his congratulations.

Less flattering and, unacceptable by today's standards, was another item in the Telegram, an advertisement placed by a Huntsville hardware merchant encouraging husbands to purchase an electric washing machine because "when women get the vote, who will do the wash." The banner headline announcing that women had the right to vote illustrated a milestone in a lengthy and difficult struggle that began in the 19th century. The hardware merchant's advertisement signaled that the struggle for women's rights and dignity was still far from over.



Photo courtesy of National Archives

**In an effort to achieve voting rights, women march during a 1912 Suffrage Parade held in New York City. Often supporters met fierce resistance, and were heckled by opponents and jailed.**

Between 1878, when the amendment was first introduced in Congress, and August 18, 1920, when it was ratified, champions of voting rights for women worked tirelessly. When New York adopted woman suffrage in 1917 and when President Wilson changed his position to support an amendment in 1918, the political balance began to shift in favor of the vote for women.

On May 21, 1919, the House of Representatives passed the amendment, and two weeks later, the Senate followed. When Tennessee became the 36th state to ratify the amendment on Aug. 18, 1920, the amendment passed its final hurdle of obtaining the agreement of three-fourths of the states. Secretary of State Bainbridge Colby certified the ratification on Aug. 26, 1920, and the face of the American electorate changed forever.

# Marshall Stars at Work

**Edgar Carrasquillo, EJ71,** received a Director's Commendation for outstanding technical direction, leadership, coordination skills, sustained dedication, and perseverance in the successful development, flight certification, integration and operation of the Liquid Metal Diffusion experiment.

**May Wales, AA01**, received a Director's Commendation for extraordinary visibility, leadership and ability in the development and implementation of

several “original” avenues of publicity to provide the ultimate in public awareness for the Marshall Center Open House '98 held May 16.

**Gene Leckie**, Marshall retiree, received a NASA Exceptional Service Medal Aug. 17 for his outstanding leadership and extraordinary contributions provided to the management of Marshall's Information Systems Services Office, especially during the recent Russian network implementation. He

also received a letter of congratulations from NASA Administrator Dan Goldin, and a 40-year Service Certificate and pin for his dedicated service to the federal government, including 38 years with NASA.

*“Marshall Stars at Work” features Marshall employees who have made significant strides in their professional career and educational development.*

## Upcoming Events

### Town Meeting Planned for Thursday at HOSC

The next Town Meeting at Marshall is set for 1:30-3:30 p.m. Thursday, Aug. 27, at the Huntsville Operations Support Center (HOSC) in room A-164. This will be the fourth of six meetings held by Acting Center Director Carolyn Griner where she will present her thoughts on how to revitalize certain aspects of the Center's culture. Additional Town Meetings are planned for 1:30-3:30 p.m. Aug. 31 in Bldg. 4200, room G-13 and Sept. 1. The location and time of the Sept. 1 meeting will be announced at a later date.

### All-Hands Meeting Set for 10 a.m. Tuesday, Sept. 15, In Morris Auditorium

An All-Hands Meeting will be held at 10 a.m. Tuesday, Sept. 15, in Bldg. 4200, Morris Auditorium. Employees who are unable to attend may view the meeting on Centerwide closed-circuit television.

### Marshall Association Offers Prorated Membership Fee

The Marshall Association, formerly the Marshall Management Association, is offering to current and former Marshall employees a prorated membership fee of \$10 for the remainder of the 1998 calendar year.

The association offers members a forum for exchanging ideas across a broad range of topics, and strives to improve Marshall's effectiveness, efficiency and overall contribution to America's space program. For more information about joining the Marshall Association call T.J. Williams at 544-0295.

### Safety Day at Marshall Is Sept. 23

# Thousands Celebrate NASA's

For the first time ever, Marshall held its annual picnic at the U.S. Space & Rocket Center Saturday, Aug. 22. Thousands of employees and their families attended this jam-packed event that featured games, contests, entertainment, and lots of good food.

Another first for this picnic was the

children's coloring contest. There were over 340 entries to the contest. Congratulations to these budding artists:

#### Ages 2-4

First - Patrick Hammond - Membership to the Birmingham Zoo  
Second - Joel Tinker - Tennessee Aquarium  
Family Passes  
Third - Kailey Landrum - \$15 Toys R Us



The Children's Parade

NASA photos by Dennis Olive



Astronaut team visits picnic. From left, Mark Lee, Janet Kavandi, Dominic Gorie, Charles Precourt, Jan Davis and Franklin Chang-Diaz.



# 40th Anniversary

## Gift Certificate

Honorable Mention - Maggie Killen - Southern Adventure Family Pass

## Ages 5-7

First - Steven Hwang - Vision Land Family Passes

Second - Stephen Hill - \$25 Toys R Us Gift Certificate

Third - Joseph Smith - \$15 Movie Gift Certificates

Honorable Mention - Jessilee Campbell - Southern Adventure Family Pass

## Ages 8-12

First - Shayna Spearman - Four One-day tickets to Walt Disney World

Second - Julie Hendon - \$25 Madison Square Mall Gift Certificate

Third - Neil Whittle - \$15 Movie Gift Certificates

Honorable Mention - Kevin Chou - Southern Adventure Family Pass

Families worked together to solve the questions to the educational scavenger hunt. Prizes included passes to Freedom Kids Station, Astronaut and Space Shuttle Bennie Babies and passes to Southern Adventure. Participants in this activity included Michael Wright, Leigh Ann Harper, David Weeks, Clint Patrick, Darrell Moore, Kendall Junen, Jim Teed, Patsy Harwell, Trisha Hancock, Andy Chabelal, Lauren Goun, and Steve Herlich.

Prior to the fireworks display, the traditional door prize drawing was held with prizes awarded to:

Nintendo 64 - Leslie Law/ASRI

Covington Bistro Set - Marvene Nichols/NASA Security

Mattel's Snow White - Debbie Ledbetter/EH53

Thermos Gas Grill - Clint Patrick/EB22

Aiwa Shelf System - Barry Merris/EH12

4-Head VCR - Dear Daugherty/NTI

25" Stereo color TV - Patrick McManus/EB13

Cordless Phone with Caller ID, Phyllis Smith/EB23

Cannon Sure Shot Camera - Norma Dellinger/Retired

Sharp Microwave - Charles Rithmire/AL21

Bakers Rack - Jill Mitchell Sallas/EJ42

Madison Square Mall \$50 Gift Certificates - Matthew

Billions/LB&B; John Davis/ES81; Lisa Griffin/ED32

Regions Bank Golf Shirt - John Farmer/Retired

Regions Bank Wind Breaker - Tom Dellinger/Retired

Parent-Child Space Camp Tuition, Betsy London/RA30

NASA 40th Anniversary hats autographed by Ron

Howard - Dan Cockrell/Retired; Victoria Miller/

GHCC; Judy Green/CO01; NASA 40th Anniversary

T-shirt autographed by Ron Howard -

Belinda Hill/EG&G; Jenny Blocker/EP83

NASA 40th Anniversary hat autographed by Tom

Hanks - Sharon Smith/guest

NASA 40th Anniversary T-shirts autographed by

Tom Hanks - Greg Dukeman/ED13; Patrick Hart/

NTI

Autographed astronaut poster - Pablo Torres/EH22

Sunday Brunch for two at Lofton's in Huntsville

Hilton - Ann Holmes/EJ71



Murphy's Magic, always a favorite



Picnic pals



Picnic fun - Acting Center Director Carolyn Griner distributes goodie bags.



## Snoopy Award Honorees

Astronaut Thomas Jones presented Silver Snoopy Awards to two Marshall Center employees Aug. 20.

The Silver Snoopy Award is presented to employees in appreciation for their "professionalism, dedication and outstanding support that greatly enhanced flight safety and mission success while supporting the Space Shuttle, Space Transportation Program."



NASA photos by Adeline Byford

Above, astronaut Thomas Jones presents the Snoopy Award to George Kearns, PD11.



Jones with Snoopy Award recipient John Brunson, EL24.

## At Marshall Center

### Export Policy Compliance is Crucial

The Marshall Center is committed to strict adherence to all U.S. export control laws and regulations.

Because of Marshall's commitment, under no circumstances will the export of technical data, software, or commodities take place contrary to U.S. export control laws and regulations, according to Marshall Export Program team members.

To "export" means to transfer commodities, software/computer code and/or technical data from the United States via any of the following: mail, shipment, hand-carry, telephone, electronic mail, facsimile, over the Web, and any other electronic means.

Transfer also occurs at the time of release of technical data into the public domain in the form of public speeches, published articles, lectures, marketing brochures, etc. The release of export-controlled information to a foreign visitor in the United States is considered an export.

"Administrative, civil and criminal penalties exist for violations of export control laws and may be imposed against the Center, project office, laboratory and/or its individual employees," said Eric Hyde, assistant Center export administrator.

"Due to the serious consequences of failure to comply with U.S. export control laws and regulations, the importance that every employee be in full compliance cannot be over emphasized."

The Marshall Export Program team includes Hyde, Marshall Center Export Control Administrator Jim Kennedy and Center Export Counsel Jim McGroary.

Representatives from every Center project office and laboratory are available to assist employees with:

- Procedures for mail to foreign countries
- Exporting commodities and software
- Procedures for foreign visitors
- Exporting technical data/software

Yearly export control training is now provided for Center Export Control representatives. In the future, yearly training will be offered to senior management, Center Export Control representatives and all Marshall employees.

More information about the NASA Export Control Program may be found at the following Web site:

<http://www.hq.nasa.gov/office/codei/nasaecp/index.html>

## Obituary

**Ransburgh, John**, 59, Huntsville, died Aug. 13 at a Pensacola, Fla., hospital. At the time of his death, Ransburgh was division chief of Fabrication Services at Marshall. He began his career at NASA in 1962. Ransburgh is survived by his wife, Jimmye Johnson Ransburgh, one son and three daughters.



## Countdown to NASA's 40th Anniversary

Events unfolding as NASA prepared to open for business on October 1, 1958, included:

- **July 29, 1958** — President Dwight D. Eisenhower signs H.R. 12575, the National Aeronautics and Space Act of 1958.
- **July 30, 1958** — President Eisenhower requests \$125 million to create NASA.
- **Aug. 8, 1958** — President Eisenhower nominates Dr. T. Keith Glennan to be the Administrator of the National Aeronautics and Space Administration and Dr. Hugh L. Dryden as deputy administrator.
- **Aug. 14, 1958** — Nominations of Glennan and Dryden are approved by the Senate Special Committee on Space and Astronautics.
- **Aug. 15, 1958** — Glennan's nomination is confirmed by the Senate.
- **Aug. 19, 1958** — Glennan is sworn-in as Administrator of NASA and Dryden as deputy administrator.
- **Aug. 22, 1958** — The National Advisory Committee for Aeronautics held its final meeting and invited Glennan to receive best wishes for the future.
- **Aug. 27, 1958** — President Eisenhower signs Public Law 85-766, which provided an \$80 million appropriation for NASA, including \$50 million for research and development, \$25 million for construction, and \$5 million for salaries and expenses.

## New Web Site Traces NASA's 40-Year History

Marshall employees interested in gathering historical data about NASA's 40th anniversary have a brand new information source at their fingertips.

The History Office at NASA Head-

quarters has posted a special page on the World Wide Web entitled

"Celebrating NASA's 40th Anniversary 1958-1998." The site offers links to publications, photographs, documents, biographies and other NASA history-related sites.

The publication section includes brief reference materials, selected monographs and other items.

The photograph section — illustrating the dawn of the space age — offers a

variety of photos, including Sputnik and Explorer. It also includes a link to the NASA Image Exchange (NIX), featuring a wide range of photos from the NASA field centers and Headquarters.

The biographies section includes information related to

astronauts, key aerospace officials and policymakers, as well as NASA administrators and deputy administrators.

Key documents on the Web site include copies of the National Aeronautics and Space Act and other policy documents.

The 40th Anniversary Web site page may be found at:

<http://www.hq.nasa.gov/office/pao/History/40thann/40home.htm>

*Celebrating NASA's Fortieth Anniversary 1958-1998*



*Pioneering the Future*



Courtesy photo

### X-33 Launch Site Nears Completion

An overall photo of the 25-acre X-33 launch site taken July 31 from Haystack Butte at Edwards Air Force Base, Calif., shows the site nearing completion. Construction crews recently erected the 250-foot water tower, left, which holds 250,000 gallons of water and will supply the water deluge system at launch. Other recent additions to the site include the white pressurized tanks for the liquid hydrogen and liquid oxygen

that eventually will supply the X-33's linear aerospike engines, and the translating shelter, right, which will house the X-33 while it is serviced horizontally prior to each launch. The launch site is scheduled for completion this fall. The first of 15 test flights for the X-33 is scheduled for July 1999. The X-33 program is a major assignment of the Space Transportation Programs Office at Marshall.

## Employee Ads

### Miscellaneous

- ★ Toy Poodle puppy, male, \$250. 753-2278
- ★ Slide projector; band instruments, trombone and clarinet, make offer. 534-8186
- ★ Trombone, silver, Besson, 2-20, case, \$150. 880-8134
- ★ Phantom electric guitar; 8-inch, 50-watt amplifier with cord, \$60. 233-1252
- ★ Ti Bubble 2 driver, S-90, \$220; Taylor Made metalwoods, system 2 driver and 2, 3 & 4W, \$20 ea. 350-1997
- ★ Sauder entertainment center, \$50; girl's 20" bike, \$50; swingset, \$50. 830-4201
- ★ Computer, ram, 2 ea., 4 MG sims, 72 pin, \$15; Huffy 24" boy's bicycle, \$15. 883-2757
- ★ Large aquarium w/or w/out access. 721-1303
- ★ Mini-blinds, various sizes, green, \$3 ea.; hanging lamp, \$10; 32" storm door, \$5. 881-1249
- ★ Rainbow vacuum cleaner, \$300. 772-7842
- ★ 1997 Sea Ark bass boat, 90 HP Johnson motor, drive-on trailer, \$8,000. 773-5108
- ★ Maple Hill double lawn cyp, flat bronze monument area, pre-installed vaults, \$2400. 881-0278
- ★ Inline skates, women's size 7, black, oxygen XE 3.1 w/safety pads, \$75 obo. 539-0123
- ★ Lee PRO1000 reloading press, 9mm dies, adjustable charge bar, spare toolhead, factory manuals, \$75. 722-0882
- ★ Hay, Bermuda or mixed grass, square bales, fertilized, \$2/ bale from field, \$2.50/bale from barn. 778-8836
- ★ Lennox 3-ton heat pump, needs new compressor, \$200; bedliner for short-bed pickup, \$175. 852-5446 after 5 p.m..
- ★ Kenmore heavy-duty washer and dryer, electric w/lighted panels, \$200; three oak-finish bookcases, 30" x 80", \$120. 830-4477
- ★ Zenith 19" portable color TV, \$50. 859-3136

### Vehicles

- ★ 1987 Dodge Shelby Daytona, 4-cyl., 5-spd., spoilers, sunroof, sport wheels, 25 mpg, leaking A/C, \$1,750 firm. 753-2278
- ★ 1994 Ford XLT Ranger pickup, extended cab, V6, 41K miles, A/C, 5-spd., bedliner cover, \$8,700. 881-5034
- ★ 1983 Taruco motor home, 31'. 536-0672
- ★ 1984 Ford, Crown Victoria, 95K miles, \$800. 881-4339
- ★ 1995 Ford Windstar, dual A/C, cruise, towing pkg., AM/FM cassette, teal exterior, 69K miles, \$11,000. 859-4156
- ★ 1995 GMC pickup, extended cab, 350, automatic, all power, \$16,750. 730-8070 days, 773-0805 eves.
- ★ 1988 Oldsmobile Ninety-Eight Brougham, white, 108K, \$3,200. 461-4816

- ★ 1986 Chevrolet Silverado pickup, 89K miles, tilt, cruise, power windows, \$7,500. 586-4546

### Lost

- ★ Gold monogram (MEH) pin, 4200 complex. 544-2571

### Carpool

- ★ Decatur to Marshall, Mon./Tues./Wed./Fri., non-smoker, flexible hours, male/female. 351-6855

### Wanted

- ★ Cabin to rent in Gatlinburg, Tenn., 1 bedroom, inexpensive, 12/23-28/98. 536-7541

## Center Announcements

- ✦ **Shuttle Buddies** — The Shuttle Buddies will meet for breakfast at 9:15 a.m. Aug. 31 (each fourth Monday) at Shoney's on University Drive West. **Contact:** Deemer Self, 881-7757
- ✦ **MOO** — The Management Operations Office (MOO) retirees will meet for breakfast/lunch at 10 a.m. Aug. 27 (4th Thursday each month) at the Cracker Barrel in Madison. All present or former MOO employees and retirees are invited. **Contact:** 539-0042
- ✦ **MSAA** — The Mississippi State Alumni Association (MSAA) is sponsoring an Alumni and Friends Dinner Sept. 3 at Valley Hill Country Club. **Contact:** Karen Dugard, 830-9065 or Jim Ward, 883-9462
- ✦ **Toastmasters** — The NASA Lunar Nooners Toastmasters Club will meet at 11:30 a.m. Tuesday, Sept. 1, in the Bldg. 4610 cafeteria conference room. All Marshall employees, contractors and friends are invited. **Contact:** Lee Johns, 544-5142
- ✦ **NARFE** — The National Association of Retired Federal Employees (NARFE), Chapter 736, will meet at 11 a.m. Wednesday, Aug. 26, at Morrison's Cafeteria in Decatur. Linda Bush, activities director at Medical Park Convalescent Center, will be the guest speaker. All retired federal employees are invited. **Contact:** John Hilburn, 355-2874 or Marty Eddy, 773-4826
- ✦ **Cellular Phone Reprogramming** — Cellular phone area code reprogramming will be available for Marshall employees, on-site contractors and retirees from 9 a.m.-1 p.m. Aug. 26 at Marshall's Activities Bldg. 4752. **Contact:** NASA Exchange, 544-7564
- ✦ **Full Cost Training** — Full Cost training for Center employees is set for 8 a.m.-4:30 p.m. during August and September. Employees may register for the eight-hour training via AdminSTAR. Training dates are: Aug. 26 and Sept. 9 at the Sparkman Center in Bldg. 5304, room 4331/33; and Sept. 23 at the Sparkman Center in Bldg. 5304, room 4353/57. **Contact:** LaVerta McGlathery, 544-7560

- ✦ **Transient Parking Spaces** — The transient parking spaces outside Center buildings are reserved for vehicles operated by persons who are not assigned to the building or complex which the parking lot serves. Parking in the transient spaces is limited to two hours unless otherwise posted and violators will be ticketed.
- ✦ **MARS Ballroom Dance Club** — The MARS Ballroom Dance Club will offer bolero and samba lessons from 7-8 p.m. Sept. 14, 21, 28 and Oct. 5 in the Parish Hall at St. Stephen's Episcopal Church, 8020 Whitesburg Drive. Lessons are available to MARS Ballroom Dance Club members and partners/guests. **Contact:** Pat Sage, 544-5427
- ✦ **MARS Fishing Club** — Results from the Aug. 15 tournament on Guntersville Lake include first place winners Robby Butler and Josh Butler with six fish weighing 15.67 pounds. Second-place went to Charlie Cothran and Ross Evans with four fish weighing 10.60 pounds. Charles Kilgore and Don McQueen won third-place with one fish weighing 2.95 pounds. Big fish honors went to Josh Butler with a 4.55-pound largemouth. The next tournament is set for Sept. 5 at First Creek. All NASA employees, family members and on-site contractors are invited. A boat and experience is not required. **Contact:** John Pea, 544-8437, Don McQueen, 544-9073 or Charlie Nola, 544-6367

## Job Opportunities

- CPP 98-111-CP, AST, Technical Management Systems, GS-801-14**, Systems Analysis & Integration Lab, Configuration Management Division, Project Support Branch. Closes Sept. 1.
- CPP 98-118-JB, Education Programs Specialist, GS-1720-13**, Customer & Employee Relations Directorate, Education Programs Office. Closes Sept. 1.
- CPP 98-121-RE, Management Support Specialist, GS-301-12**, Safety & Mission Assurance Office, Office of the Director. Closes Sept. 1.
- CPP 98-110-JB, Program Analyst, GS-343-7**, Space Shuttle Projects Office, Space Shuttle Main Engine Project, Business Management Office. Closes Sept. 2.
- CPP 98-113-CV, AST, Aerospace Flight Systems, GS-861-14**, Flight Projects Office, Station Life Support Projects Office. Closes Aug. 26.
- CPP 98-127-JB, Communications Specialist, GS-301-14**, Customer & Employee Relations Directorate, Internal Relations & Communications Office. Closes Aug. 28.
- CPP 98-117-JB, Industrial Property Management Specialist, GS-1103-13**, Center Operations Directorate, Logistics Services Office, Property Management Division. Closes Sept. 1.
- CPP 98-120-PL, AST, Mission Support Requirements & Development, GS-801-14**, S&E, Mission Operations Laboratory, Mission Systems Division, Systems Integration Branch. Closes Sept. 1.
- CPP 98-115-CL, Computer Specialist, GS-334-13**, COD, Information Systems Services Office, Operations Division. Closes Sept. 8.

# MARSHALL STAR

Marshall Space Flight Center, Alabama 35812

The Marshall Star is published every Wednesday by the Internal Relations and Communications Office at the George C. Marshall Space Flight Center, National Aeronautics and Space Administration. Contributions should be submitted no later than Friday noon to the Marshall Internal Relations and Communications Office (CO40), Bldg. 4200. Submissions should be written legibly and include the originator's name. Send electronic mail submissions to: ann.bryk@msfc.nasa.gov The Marshall Star does not publish commercial advertising of any kind.

Director of Internal Relations and Communications — Norman Brown  
Managing Editor — Angela D. Storey  
Writer-Editor — Ann Marie Bryk

NASA at Marshall Space Flight Center may be found at the following Web site: <http://www.msfc.nasa.gov>

U.S. Government Printing Office 1998-633-111-80024

BULK RATE  
Postage & Fees PAID  
NASA  
Permit No. G-27